

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An apparatus for use in a hybrid fiber coax (HFC) network to provide an HFC forward path spectrum from the head end to a network fiber node, the apparatus comprising:

a head end modulator directly receiving a switchable digital data signal and internally processing the switchable digital data signal to produce [[an]] a modulated optical signal that directly drives the network fiber node, the optical signal being modulated by a radio frequency signal, wherein the radio frequency signal composes the HFC forward path spectrum and includes a plurality of channel slots, and wherein the radio frequency signal carries the switchable digital data signal in the plurality of channel slots carrying the HFC forward path spectrum, wherein the HFC forward path spectrum includes a radio frequency (RF) spectrum carrying the switchable digital data signal.

2. (Original) The apparatus of claim 1 wherein the head end modulator generates an analog optical signal for the network fiber node.

3. (Original) The apparatus of claim 1 wherein the head end modulator processes the switchable digital data signal to dynamically allocate bandwidth to different services.

4. (Original) The apparatus of claim 1 wherein the switchable digital data signal is received in the form of a 1GigE signal.

5. (Original) The apparatus of claim 1 wherein the switchable digital data signal is received in the form of a 10GigE signal.

6. (Original) The apparatus of claim 1 wherein the switchable digital data signal is received as a single digital data signal input.

7. (Original) The apparatus of claim 1 wherein the switchable digital data signal is received as a plurality of digital data signal inputs.

8. (Currently Amended) A method for use in a hybrid fiber coax (HFC) network to provide an HFC forward path spectrum from the head end to a network fiber node, the method comprising:

directly receiving a switchable digital data signal at a head end modulator; and
processing the switchable digital data signal, at the head end modulator, to produce [[an]] a modulated optical signal that directly drives the network fiber node, the optical signal being modulated by a radio frequency signal, wherein the radio frequency signal composes the HFC forward path spectrum and includes a plurality of channel slots, and wherein the radio frequency signal carries the switchable digital data signal in the plurality of channel slots carrying the HFC forward path spectrum, wherein the HFC forward path spectrum includes a radio frequency (RF) spectrum carrying the switchable digital data signal.

9. (Original) The method of claim 8 further comprising:

generating an analog optical signal, with the head end modulator, for the network fiber node.

10. (Original) The method of claim 8 wherein the head end modulator processes the switchable digital data signal to dynamically allocate bandwidth to different services.

11. (Original) The method of claim 8 wherein the switchable digital data signal is received in the form of a 1GigE signal.

12. (Original) The method of claim 8 wherein the switchable digital data signal is received in the form of a 10GigE signal.

13. (Original) The method of claim 8 wherein the switchable digital data signal is received as a single digital data signal input.

14. (Original) The method of claim 8 wherein the switchable digital data signal is received as a plurality of digital data signal inputs.

15. (Currently Amended) A system for use in a hybrid fiber coax (HFC) network to provide an HFC forward path spectrum from the head end to a plurality of network fiber nodes, the system comprising:

a plurality of head end modulators, each modulator directly receiving a switchable digital data signal and internally processing the switchable digital data signal to produce [[an]] a modulated optical signal that directly drives an associated network fiber node, the optical signal being modulated by a radio frequency signal, wherein the radio frequency signal composes the HFC forward path spectrum and includes a plurality of channel slots, and wherein the radio frequency signal carries the switchable digital data signal in the plurality of channel slots carrying the HFC forward path spectrum, wherein the HFC forward path spectrum includes a radio frequency (RF) spectrum carrying the switchable digital data signal,

wherein each individual modulator processes its received switchable digital data signal to dynamically allocate bandwidth to different services to provide an essentially narrow cast approach among the plurality of modulators.

16. (Original) The system of claim 15 wherein each head end modulator generates an analog optical signal for the associated network fiber node.

17. (Original) The system of claim 15 wherein the switchable digital data signal is received in the form of a 1GigE signal.

18. (Original) The system of claim 15 wherein the switchable digital data signal is received in the form of a 10GigE signal.

19. (Original) The system of claim 15 wherein the switchable digital data signal is received as a single digital data signal input.

20. (Currently Amended) The apparatus of claim 1 wherein the ~~radio frequency (RF) spectrum includes a plurality of channel slots are~~ in the form of frequency ranges.